Introduction to Chord Construction

As defined in the Diatonic Harmony chapter, a chord is 3 or more notes played at the same time. Let me add a bit more detail for the real world. The most basic type of chord is a 3 note chord, called a triad. Usually, those three notes are different notes. Don't make the mistake of assuming this means how many fingers are holding down notes for your chord. For example, an E minor chord only utilizes 2 fingers while still sounding 3 or more notes. I happen to run into this a lot with new students, which is why I mention it.

With every chord there is a root. The root is the letter name of the chord (i.e.-A, B, C#), and the one note on which the rest of the chord is built upon. For instance, C major and A major have the same formula – which categorizes both as major chords - but since that formula is calculated from 2 different roots (A and C), then 2 different chords are produced.

In this section, we will discuss the 4 basic triad types (major, minor, diminished, and augmented). All chords are analyzed and named according to the notes (or better yet, the intervals) that they contain. An interval is the distance between 2 notes. These notes, or interval distances, are all derived from the major scale. In order to build or embellish chords from scratch, one must have a good working knowledge of the major scale, it's formula of whole-step, whole-step, half-step, whole-step, whole-step, whole-step, half-step (WWHWWWH) and the scale step names (1, 2, 3, 4, 5, 6, 7, 8 or one). Also, remember that when we sharpen (#) a note, we raise it one 1/2 step, and when we flatten (b) a note, we lower it one 1/2 step.

Please note the following formulas, as you will need them as we continue.

Major chord (1, 3, 5): a major chord consists of the 1st, 3rd and 5th scale steps of the major scale. The distance between the 1st and 3rd notes is 2 whole-steps. The distance between the 3rd and 5th notes is 1 and 1/2 steps.

Minor chord (1, b3, 5): a minor chord consists of the 1st, flat 3rd and 5th scale steps of the major scale. The distance between the 1st and 3rd notes is 1 and 1/2 steps. The distance between the 3rd and 5th notes is 2 whole-steps. This means that any major chord you know can easily be converted to a minor chord by flatting the 3rd, or lowering it by a half-step (1 fret). If you already know your E major and E minor chords, notice that the only thing that changes between the 2 chords is the 1st finger. When that 1st finger is pressed down (on the 1st fret of the 3rd string), it's sounding the 3rd of the scale. When the finger is released the string is played open and the flatted 3rd is sounded.

Another example is the A major and A minor chord. Notice the difference between the 2 chords. There is only 1 note that changes between the 2 and that takes place on the 2nd string when the

C# is flattened by a half-step making the note a C which changes the chord from major to minor. Since there is only 1 note that changes from both chord examples that we just used (E minor and A minor), we can assume that all the other notes are ones and fives.

Let's try another example. Play a D major and then play a D minor. Notice that the only note that changes is on the first string, where the F# is flattened to an F to make the chord minor. Again we can assume that all the other notes in this chord are ones and fives because the only thing that changes between the major and minor chord is the third.

Diminished chord (1, b3, b5): a diminished chord consists of the 1st, flatted 3rd and flatted 5th scale steps of the major scale. The distance between the 1st and 3rd steps is 1 and ½ steps. The distance between the 3rd and 5th steps is 1 and 1/2 steps. Since the only difference between the minor chord and the diminished chord is the 5th scale step, it's simple to convert any minor chord into a diminished chord by simply flatting any "fifths" that occur in the chord. For example, play a D minor chord. Your 2nd finger should be playing the 2ns fret of the 3rd string. That note is the only 5th in a D minor chord, so lowering it by half-step or one fret will change that chord to a D diminished chord. In order to play this chord properly you will most likely need to bar the 1st three strings with your 1st finger on the 1st fret while your 3rd finger plays the 3rd fret of the 2nd string.

Augmented chord (1, 3, #5): an augmented chord consists of the 1st, 3rd and sharpened 5th scale steps of the major scale. The distance between the 1st and 3rd steps is 2 whole-steps. The distance between the 3rd and 5th steps is 2 and 1/2 steps. Since the only difference between the major chord and the augmented chord is the 5th scale step, it's simple to convert any major chord to an augmented chord by simply sharpening any "fifths" that occur in the chord. For example, play a D major chord. Do you remember where the 5th is from our last example? That's right, the 2nd fret of the 3rd string.

So the only thing we need to do to change this major chord to an augmented chord is raise the 5th by a half step or 1 fret. I'm not going to help you out on the fingering of this one. You are growing in your skills and sometimes you won't have instruction to rely on. So use your intuition and common sense to discover a fingering for this new chord that is logical and playable for you. There is no right answer per se. There may be more logical answers for this type of thing however.

Being equipped with these 4 formulas and a movable major scale will allow you to create literally hundreds of chord forms across the guitar neck. For the intermediate and advanced guitar player this is where we start upping our game. I use these formulas all the time when formulating guitar parts for studio or live performance.

Now for the exercise portion of the program!

Strum an open G major chord. Now use any of the major scale formulas that I have provided to determine which scale step each of the notes of the G major chord represents. Basically, we are looking for the scale degree number, not the letter name of the notes. For instance, slowly strum or Arpeggiate the G major chord from the 6th string to the 1st string. Now play a G major scale. The 1st or lowest note of the G major chord is obviously the 1st note of the G major scale, so this note would be a "one", or the "one" of the chord. Play the next note which should be a "B" on the 5th string. Now play through your G major scale saying out loud each number of the scale as you play it and stop at that B note. The number that you are saying when you land on the "B" should be "3", making that note the "3" of the chord. Get it? Now continue on with this same technique to determine the scale step of every note in the G chord. You will need to use your ear to compare and contrast notes as the scale form may not always exactly match where the notes of your chord fall. For instance, the 5th scale step of the G major (form 1) scale is a "D", which will be played by the pinky on the 5th fret of the 5th string. However, we are looking to identify the open 4th string (D string). If your guitar is tuned correctly, the D on the 5th fret of the A string should sound identical to the open 4th string. If you have not used this technique before, you really need to get familiar with it as it is used very frequently in the discovery of notes on your fret board.

At first this can be tricky, but don't give up! The payoff is huge in regards to mastering your fret board. Once you have all the scale steps identified in the G chord, start moving on to your other open chords. Remember that you must use the associated major scale with the chord that you are analyzing. For instance, if you are analyzing a C major chord, you must use a C major scale. If you are analyzing an A minor chord, you must use an A major scale. Don't forget that the major scale is our cornerstone for all analysis when it comes to music. We refer to it frequently, so it's extremely important that you know it inside and out. Once you master this technique you are going to start looking at chords in a totally different way and it will truly empower your playing abilities.

Now go rock some new chords!